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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,627	09/30/2003	Weston C. Roth	42P17087	7823

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER

LEE, JOHN D

ART UNIT PAPER NUMBER

2874

DATE MAILED: 08/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/676,627

Applicant(s)

ROTH ET AL.

Examiner

John D. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9-30-03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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The three (3) sheets of drawing filed in this application are acceptable.

The disclosure has not been studied to the extent necessary to discover all possible minor errors therein. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claims 10 and 11 are objected to because of the following minor informalities. The acronyms "OSP" and "HASL" are not defined or explained, either in the claims or in the accompanying specification. The Examiner is unsure as to the meaning of "OSP" and "HASL". Appropriate correction is required.

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim states that the solder joint transmits both optical and electrical signals. This statement is incorrect, however, since a solder joint (being metallic) cannot transmit an optical signal. For examination purposes, it will be assumed that applicant intends to state that the solder joint transmits an electrical signal and the light pipe surrounded by the solder joint transmits an optical signal.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 5-8 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by U.S. Patent 4,233,619 to Webb et al. Webb et al discloses an optical component housing comprising: a substrate (cap) 24; a light pipe 30 having a top and bottom surface and fitted through a bore in the substrate (cap); and a metallic surface finish coated on the cylindrical surface of the light pipe (column 3, lines 52-54), wherein a solder joint is formed between the metallic finish and the bore (column 3, lines 52-54). Light is transmitted through the bottom surface of the light pipe 30 toward light detector 20, which means that the light pipe 30 is comprised of optically transparent material capable of transmitting optical signals. The solder joint formed between the metallic finish and the bore joints the cylindrical portion of the light pipe coated with the metallic finish, and mechanically attaches the light pipe 30 to the substrate (cap) 24. Solder is fully capable of transmitting electrical signals.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, and 9-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,233,619 to Webb et al. Webb et al discloses only a single light pipe extending through the substrate (cap) 24 for coupling to light detector 20. The provision of an array of light pipes, however, for respective coupling to an array of light detectors, would have been obvious to an ordinarily skilled artisan, since it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274

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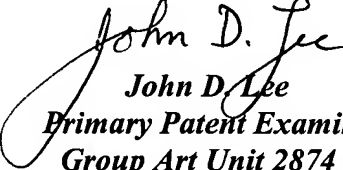
F.2d 669, 124 USPQ 378 (CCPA 1960). The substrate **24** in Webb et al, as noted above, is a housing cap. The principles of soldering the metallized light pipe to a substrate through which it passes, however, would apply no matter what type of substrate is involved. To apply such principles (as taught by Webb et al) to a metallized light pipe passing through a bore in a PCB would thus have been obvious to a person of ordinary skill. Regarding claim 9, the PCB's commonly used in optoelectronic arrangements carry both optical and electrical signals. To have the PCB (substrate) enable transmission of two signals for each light pipe connection in Webb et al, then, would have been obvious to the person of ordinary skill. Regarding claims 10 and 11, as noted above, it is not clear what is meant by "OSP" and "HASL". Assuming that these are specific types of metal finishes on the light pipe, a person of ordinary skill in the art would have found the use of any solderable metal suitable for use, and thus obvious, in the Webb et al device.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 4,207,587 to Hanes et al describes a metal coated light pipe hermetically sealed to a metallic sleeve by a solder joint.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. §§ 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

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Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (571) 272-2351. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562, to the technical support staff supervisor (Team 8) at telephone number (571) 272-1564, or to the Technology Center 2800 Customer Service Office at telephone number (571) 272-1626.


John D. Lee
Primary Patent Examiner
Group Art Unit 2874